ABSTRACT

CARRIER CONSTELLATION INFORMATION IN MULTI-CARRIER SYSTEMS

In a multi-carrier system, the carriers (f_0 ... f_{511}, f_{512} ... f_{1023}, ..., f_{3584} ... f_{4095})

5 are grouped in subsets (SUBSET1; SUBSET2; ...; SUBSET8). A constellation information transmitting arrangement (BiGi_TA), for instance located in the multi-carrier receiver (RX), produces for each carrier subset (SUBSET1; SUBSET2; ...; SUBSET8) a limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) and transmits these sets of parameter values (B1, G1; B2, G2; ...; B8,

10 G8) to a constellation information receiving arrangement (BiGi_RA), for instance located in the multi-carrier transmitter (TX). Through interpolation of the limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) the latter constellation information receiving arrangement (BiGi_RA) determines the constellation where each carrier (f_0 ... f_{511}, f_{512} ... f_{1023}, ..., f_{3584} ... f_{4095}) of a carrier

15 subset (SUBSET1; SUBSET2; ...; SUBSET8) will be modulated with.